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MTAC News & Views

A publication of the Montana Telecommunications Advisory Council

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A note from the Chairman:

by Roger Linnell, MTAC Chairman

On February 5, 1993, the Montana Telecommunications Advisory Council had its introductory meeting. In its first year of existence, much has been accomplished. We have nearly 200 members who are interested in this subject. An executive board was formed (and met 13 times), regional meetings were held at six sites, subcommittees were formed and researched major issues. An inventory of major projects in the state has been compiled and nationwide telecommunications studies gathered.

In November of 1993, MTAC sponsored our first Telecommunications Symposium. The Symposium was attended by over 150 individuals, with Montana specific issues blended with nationally known speakers. In early 1994, the Executive Board was fortunate to find an individual with the interest, knowledge and time available to serve as Executive Director of MTAC - Mike Mosphan. Mike is helping us to focus on issues at hand and is donating a tremendous amount of his time researching pertinent topics.

But we still have a great deal to do. In 1994, we hope to prepare specific recommendations for legislative and/or administrative changes. These recommendations will be ready for our 1994 Symposium to be held in Helena from September 11 - 13.

We continue to look for ways to gather input and use the vast talents of our general membership. Please continue to provide us input, participate on the various committees, and attend the symposium. The result of all our work will be a solid telecommunications foundation for the state of Montana as we head towards the year 2000.

The Purpose of MTAC

The Montana Telecommunications Advisory Council (MTAC) was created in 1993 by Senator Conrad Burns and Governor Marc Racicot in order to further the purposes of telecommunications in the state of Montana.

It was formed to investigate opportunities available to Montana to improve its communication infrastructure; to inventory all telecommunications projects being undertaken by communities, governmental bodies or organizations in the state; to plan, coordinate and assist in the development of the infrastructure and to make recommendations to the regarding policy actions needed to achieve the goal of an advanced telecommunications infrastructure in Montana by the year 2000. Specifically, the board has outlined its general mission in the following four objectives:

A. Develop a plan for the State of Montana to encourage and foster the creation of a modern, affordable telecommunications infrastructure.

B. Inventory the activities of interested communities and organizations that are undertaking projects for the creation of telecommunications infrastructure or for the creation of programs for economic development and the delivery of distance learning, telemedicine or other services.

C. Provide information regarding the status of the telecommunications infrastructure in Montana and the world.

D. Report to the Governor, the Office of Public Instruction, the Public Service Commission, and the Montana Legislature its recommendations for policy actions to achieve the implementation and utilization of a modern, state-of-the-art telecommunications infrastructure in the State of Montana.

PLEASE RETURN

Introducing our new Executive Director

by Mike Mospan, Executive Director

This is the first appearance of an MTAC newsletter article from the MTAC Executive Director. The first because MTAC has not had an Executive Director prior to April of this year. Earlier this year, the MTAC Executive Board had made a determination that it would be of benefit to MTAC for the Executive Board and the various MTAC committees to have a focal point for the coordination and oversight of activities within MTAC.

I was contacted to see if I had an interest in performing this role and, after some deliberation on my part, agreed to assume this function. The deliberation was based on the fact that I am involved, on a volunteer basis, with various community service and economic development organizations which consume quite a bit of my time. I feel that I can be of assistance to MTAC in the role of Executive Director and accepted the position.

My telecommunications background spans a period of thirty years with twenty-eight of those years as a Federal manager based in Washington, DC and involved with the deployment of national & international telecommunications networks and applications use of telecommunication technology. I was employed by the Department of Justice, the U.S. Department of Housing & Urban Development (HUD) and the U.S. Small Business Administration (SBA). At HUD & the SBA I served as the senior agency official for telecommunications and computing services. In these roles I also served on various interagency committees to formulate Federal policy and standards for telecommunications.

Upon my retirement from the Federal government, I relocated to Helena where I became involved with community service based organizations as a volunteer. These organizations include: KIWANIS; the Service Corps Of Retired Executives (SCORE), serve as Helena chapter chairman & Regional Coordinator for computing/telecommunications; the Helena Food Share, I serve as a member of the Board of Directors, speakers bureau and chair of its personnel committee, and the Job Service Employers Committee.

I started a computing and telecommunications consulting business in 1993. I have been a member of MTAC since March of 1993 and currently serve on the Executive Board, as Executive Director and a member of the Technology Committee. When I first became a member of MTAC I indicated that the constituency I represented was the citizens of Montana. While this may sound self-serving, as a retiree with a strong background in telecommunications I felt I would be able to contribute to MTAC efforts with an objective view toward anything which would improve the telecommunications infrastructure for all Montanans.

My expectations as MTAC Executive Director are to work closely with the Executive Board and the MTAC committees. It is my intention to do whatever is necessary to coordinate and facilitate the activities of MTAC. Advisory Councils, like all volunteer organizations, rely heavily on the commitment of time and personal energy of its members. This presents problems in participation in regularly scheduled MTAC organizational meetings due to travel and other commitments of the membership. I hope to be able to coordinate and facilitate the interaction of MTAC activities in my role as Executive Director.

I intend to leverage my 30 years' management experience in telecommunications and data processing in support of MTAC and the state of Montana. I believe that my experience in the areas of strategic planning, organizational development, understanding of telecommunications technology and its application and a serious commitment to the advancement of the use of technology within the state of Montana will be of benefit to MTAC.

It is my personal goal that MTAC will have recommendations to present to the state leadership by September/October of this year. I expect that MTAC will have an operating plan established by the end of this year which will serve as the foundation for continuing activities.

I look forward to an exciting and productive working relationship with the MTAC membership.

I welcome any comments, suggestions and other input from the membership. I can be reached at 406-449-2740 (voice), 406-449-8102 (FAX/voice) and via INTERNET at MIKE_MOSPAN@DESKTOP.ORG,INTERNET.

MTAC EXECUTIVE BOARD

The following people have been invited by Co-Chairmen Senator Conrad Burns and Governor Marc Racicot to volunteer their time to serve on the executive board of MTAC. They represent different constituencies which are all interested in advancing the cause of telecommunications in the state of Montana. The area represented is designated in parenthesis in the following list.

The executive board meets the second Tuesday of every month and usually utilizes the METNET compressed video system to involve as many Montanans as possible without requiring extensive travel. The general membership is invited to sit in on any meeting at any time at the METNET center nearest them.

There are three subcommittees under the executive board which meet frequently to tackle various issues and report back to the board. Please feel free to contact the chairmen if you have ideas or questions. The names of these committees and their chairmen are:

Public Policy Committee - Cathy Brightwell
Technology Committee - Doris Barta
Symposium Committee - Cynthia Denton
Information Committee - Scott Buswell

Senator Conrad Burns	Co-Chair
Governor Marc Racicot	Co-Chair
Doris Barta	Montana Deaconess Foundation, Billings, (telemedicine)
Cathy Brightwell	AT&T, Helena, (community provider)
Scott Buswell	Office of Public Instruction, Helena, (education)
Bill Chaloupaka	University of Montana, Missoula, (University)
Cynthia Denton	Hobson, (distance learning)
Dr. Robert Flaherty	Montana State University, Bozeman, (telemedicine)
Laura Goldhahn	Columbus Hospital, Great Falls, (telemedicine)
B. J. Hawkins	Mt. Public TV Assoc., White Sulphur Springs, (public TV)
Tony Herbert	Dept. of Administration, Helena, (state technology)
Betti Hill	Lt. Governor's Office, Helena, (state issues/legislation)
Carl Knudsen	Saco School District, Saco, (distance learning)
Gale Kramlick	Office of Public Instruction, Helena, (education telecommun)
Fred Lark	KXLO Radio, Lewistown, (broadcasters, small business)
Roger Linnell	(Chairman), Plum Creek Timber, Columbia Falls, (timber, business)
Joan Mandeville	Mt. Telephone Association, Great Falls, (rural telephone companies)
Marshall Mayer	Desktop Assistance, Helena, (nonprofit organizations)
Mike Mospan	(Exec. Director), Helena, (MTAC project director)
Richard Miller	State Library, Helena, (libraries)
Todd Murphy	U S WEST, Helena, (community provider)
Margaret Perez	Stone Child Comm. College, Box Elder, (colleges, Native Americans)
Representative Joe Quillici	Legislator, Butte, (legislature)
Lt. Governor Dennis Rehberg	Helena (state issues/legislation)
Bob Rowe	Public Service Commissioner, Helena (regulation, state issues)
Amy Townsend Sullivan	Sen. Conrad Burns Office, Helena (federal issues/legislation)
Tim Sweeney	Information Services Division, Helena (state issues)
Chuck Walk	Montana Newspaper Association, Helena (newspapers)
Senator Mignon Waterman	Helena, (legislature/SIMMS Project)
Ken Watts	TCI, Billings (community provider)
Oak Winters	Montana State University, Bozeman (University)

INTERNET IN MONTANA: THE INFORMATION AGE HAS ARRIVED!

by Tim Sweeney, Montana Department of Administration

Everyone is talking about the Internet nowa days, or so it seems. However, not every one understands what the Internet is all about. Don't worry if you're one of these people. Contrary to what most ten-year-olds will have you believe, the Internet is not as simple as sliced bread. As part of an ongoing series of educational articles on telecommunications issues, the Montana Telecommunications Advisory Council will attempt to respond to some of the basic questions and issues you may have concerning the Internet.

What is the Internet? Simply put, the Internet is a network of networks. Using various types of technology including telephone lines, the Internet links thousands of computer networks worldwide. By linking all these computer networks together, the Internet allows people to communicate with one another and access a massive collection of information resources. For instance, a businesswoman in Cincinnati, Ohio can send electronic mail to an associate in Brisbane, Australia; a student in Tokyo can explore the card catalogue at the Library of Congress in Washington D.C.; and a physicist in Zurich can access data on a NASA computer located in Sunnyvale, California. As you can probably guess, the Internet has dramatically changed the way information is shared, the manner in which educational and scientific research is conducted, and how people communicate. In this regard, Internet may represent one of the most significant technological achievements in modern history.

Where did the Internet come from? The Internet has its origin in the United States Department of Defense (DOD). In response to the launching of Sputnik by the former Soviet Union, DOD created the Advanced Research Projects Agency (ARPA). ARPA subsequently established ARPANET, an interactive computer-network that was intended to facilitate defense-related research and development.

continued on page 5

1993 Information Networking Symposium a Success

by Todd Murphy, US West
1993 Symposium Chairman

MTAC's first "Information Networking Symposium" was held on the Montana State University campus in Bozeman on November 11 and 12, 1993. The event was a great success, thanks to the hard working committee members, sponsors, and exhibitors. Todd Murphy chaired the committee who volunteered their time and energy to organize the various details.

Approximately 150 attendees, from all walks of life in Montana, participated in the one and one-half day event. The focus was to educate Montanans on various telecommunications topics and to offer networking opportunities for those who are interested in this subject.

Roger Linnell, MTAC Chairman, kicked off the meeting on Thursday morning of the conference with a welcome and explanation of the organization. George Welles, US WEST COMPASS Trials, followed with a special visionary video on multimedia.

Three extensive plenary sessions were held throughout the conference and featured panels on "Teledemocracy", "Regulatory Approaches to Telecommunications Modernization", and Rural Montana - What's in it for us?". A myriad of breakout sessions included Distance Learning, Multimedia Applications, Technology I/I/III, Technology in the Classroom, Telemedicine, Grassroots Montana, Telecommuting and Home Access, and Funding Sources.

Special invited speakers for the event included Senator Conrad Burns, Lieutenant Governor Dennis Rehberg and Idaho Public Utility Commissioner Joe Miller, Montana Public Service Commissioner Bob Rowe and TCI Cablevision Vice President Robert Thomson. Many other speakers joined the various panels and workshops.

Several exhibitors participated with informational booths during the conference. They were: Computer Lines Inc., Eagle Satellite, TCI Cablevision, US WEST Communications, COMMNET 2000, TRI Touch America, EDUNET, Virtual Medical Center, SIMMS Project, and Public Television.

Continued on page 5

ATTENTION MTAC MEMBERS:

THE MTAC EXECUTIVE BOARD HAS COME UP WITH SEVEN ISSUE AREAS THAT WE FEEL SHOULD BE ADDRESSED FOR THE 1995 LEGISLATURE. IF YOU HAVE ANY SUGGESTIONS IN THESE SUBJECT AREAS OR JUST WANT TO BE INCLUDED IN THE PROCESS CALL THE CONTACT PEOPLE INVOLVED IN THE SUBJECT AREA YOU ARE INTERESTED IN.

1) THE ESTABLISHMENT OF A COMMUNICATIONS COORDINATOR FOR THE STATE OF MONTANA WHO WILL BE IN CHARGE OF COORDINATING PUBLIC/PRIVATE EFFORTS.

   AMY SULLIVAN 449-5401; TONY HERBERT 444-4111

2) ADOPT AN OPEN ARCHITECTURE PHILOSOPHY FOR STATEWIDE GOVERNMENT TELECOMMUNICATIONS.

   TONY HERBERT 444-4111; RICHARD MILLER 444-3115

**TELECOMMUNICATIONS IMPLEMENTATION BARRIER REMOVAL
(THE FOLLOWING TWO RECOMMENDATIONS INVOLVE THIS AREA)

3) GENERAL LEGISLATION CHANGES.

   CATHY BRIGHTWELL 449-6776; TIM SWEENEY 444-5476

4) FUNDING: EDUCATIONAL DISCOUNTS, TAX INCENTIVES, PUBLIC FUNDING ETC.

   TIM SWEENEY 444-5476; CATHY BRIGHTWELL 449-6776

5) ARCHITECTURE AND SERVICE INFRASTRUCTURE PLAN FOR PUBLIC/PRIVATE ENTERPRISE IN MONTANA.

   TODD MURPHY 441-7772; JOAN MANDEVILLE 761-8333

6) A MINIMUM SET OF TECHNOLOGY STANDARDS TO IMPLEMENT IN SCHOOLS; K-12 AND HIGHER EDUCATION.

   CARL KNUDSEN 527-3531; SCOTT BUSWELL 444-4326

7) NETWORK ACCESS

   MARSHALL MAYER 442-3696; B.J. HAWKINS 547-3803; TODD MURPHY 441-7772

WE ARE LOOKING FOR COMMENT BETWEEN NOW AND JUNE 10, 1994.

Several corporations helped with some of the expenses of the conference by sponsoring various aspects. TCI and U S WEST each sponsored a luncheon. Plum Creek Industries, the Montana Telephone Association and COMMNET 2000 each sponsored a break.

At the closing session of the convention, MTAC held a general membership meeting which was well attended. It was the first time in many months for the membership to participate in a meeting and various important subjects were addressed.

Symposium feedback, obtained via questionnaires, was overwhelmingly positive. Therefore, MTAC has already begun plans for a second conference planned for next fall. After the conference, several die-hards braved the snow and cold to watch the U. of M. Grizzlies upset the heavily-favored MSU Bobcats and the annual Cat-Griz football game.

INTERNET IN MONTANA

continued from page 4

By linking various computers around the country ARPANET allowed scientists and researchers to share important information and data with one another. However, scientists and researchers outside the defense establishment were soon clamoring for access to ARPANET because of its tremendous potential for sharing information resources. In 1983, this demand and the continuing use of the network for purposes unrelated to national defense resulted in the establishment of a progeny network, MILNET, a network dedicated to military operational use. ARPANET was thus left to the non-military researchers and scientists. At approximately the same time major advances were occurring in network technologies. As soon as other networks began connecting to ARPANET, the network of networks known as ARPA Internet, later known just as Internet, came into existence.

As the history of ARPANET suggests, networks are very dynamic. The Internet of today may not resemble the Internet of tomorrow. In fact, successor networks such as the National Science Foundation's NSFNET and the National Research and Education Network (NREN) are already building upon the Internet, exponentially increasing the information resources available from the Internet. Additionally, the Clinton administration and Congress are currently working on the establishment of the National Information Infrastructure (NII), which will incorporate technologies such as the Internet to create the much publicized information super-highway.

What resources are available via the Internet? Generally speaking, Internet resources can be divided into two categories: communications and data. The communications category includes services such as electronic mail, electronic bulletin boards, mailing lists, and Internet Relay Chat. Electronic mail, also known as E-mail, allows users on a computer network to send and receive written messages to one another using their computer terminals.

Electronic Bulletin Board Systems (BBS's) are quite literally bulletin boards, a place where computer users can electronically post messages for other users of a BBS to read. There are tens of thousands of BBS's in the United States alone, many dedicated to specific subjects. An example of a dedicated BBS would be the Montana Educational Telecommunications Network (METNET). METNET is operated by the State of Montana, Office of Public Instruction and serves as an electronic meeting place for Montana educators and students.

Mailing lists are permutations of e-mail and BBS's which allow e-mail messages to be distributed to a designated list of users. Any message addressed to a specified address on the Internet is automatically forwarded to every user on that particular mailing list. The potential for mass communication is obvious considering there are millions of users on the Internet.

Internet Relay Chat (IRC) is probably one of the simplest communication-type services. It allows multiple Internet users to communicate with one another in real-time using just their keyboards and monitors. IRC dedicates a "channel" on the Internet and anyone who wishes to participate in an IRC discussion has only to access the channel and start typing.

continued on page 6

continued from page 5

The data services available on the Internet allow users to search and retrieve data located on other computers. There are a variety of such services, generally referred to as "interfaces" or "servers." Known by names such as Anonymous FTP, Archie, Veronica, Gopher, Mosaic, World-Wide-Web, and Wais, these services allow users to efficiently search through the data resources of countless computers.

What data resources are available using these data services? Due to the enormity of the existing resources, and because new networks and computers are being linked to the Internet every day, it is impossible to catalogue all the data resources available on the Internet. However, examples include Commodity Market Reports, as compiled by the Agricultural Market News Service of the United States Department of Agriculture; U.S. Census data; E.T.Net, a medicine information service; United States Supreme Court rulings; electronic publications maintained by the Library of Congress; and E-Math, a BBS operated by the American Mathematics Society. Take our word for it though, whatever your interest there is at least one data resource on the Internet.

While the selection of resources accessible via the Internet is impressive, it must be remembered that electronic access is not an end onto itself. Putting a computer terminal in front of someone with no knowledge of computers and networks is an exercise in futility. Therefore, education will play an important role in providing people with the skills necessary to access electronic information resources such as the Internet. Libraries also will play an important role in ensuring public access to information. Since deploying computers and network access in every home is not economically feasible, locating such equipment in libraries will represent the most cost-effective means of public access. In addition to being a primary on-ramp to the information super-highway, libraries can be expected to provide the expertise necessary to get where you want to go.

There are numerous public policy questions associated with electronic information resources. How do we ensure that our society does not splinter into information haves and have-nots? (Some say it already has happened.) How will we pay for the information super-highway? What role should the government play? These are just some the questions that groups such as MTAC are trying to answer. If you have questions or ideas about these issues or you are just interested in learning more about telecommunications and information technology, please contact us at MTAC

Technology is our Future

Montana Telecommunications Advisory Council Symposium and Distance Learning and Technology Conference are combining for one conference with input from the University of Montana's Information Technology on the Frontiers of Learning Conference organizers.

The conference will feature day-long threads to thoroughly cover important issues in telecommunications and technology to assist the classroom teacher, administrator and guidance personnel.

Partial List of Conference Threads

INTERNET - What it is, How it can be utilized, Points of Access
Funding Sources - Pre-planning, Writing for Grants, Locating Sources
Video/Cable/Satellite in the Classroom
Telemedicine
Technology and Technology Planning
Education and Technology
Universal Service - What it is, How to achieve it
Agriculture/Rural Issues

Conference Schedule

Sunday, September 11

Registration	4:00 - 6:15 p.m.	Colonial Inn
Orientation for those taking college credit	5:00 p.m.	(Must attend for college credit)
Banquet with Keynote Speaker	6:30 - 9:00 p.m.	(Must attend for college credit)

Monday and Tuesday

(Must attend for college credit)

Registration	7:30 a.m. all day Monday and from 7:30 a.m. - Noon Tuesday
Morning Sessions	8:30 - 9:45 a.m. and 10:15 - 11:30 a.m.
Luncheon with Keynote Speaker	11:45 a.m. - 1:15 p.m.
Afternoon Sessions	1:30 - 2:45 p.m. and 3:15 - 4:30 p.m.

College Credit and CEUs will be offered.
This conference provides very timely and appropriate PIR Day Inservice and Learning.

Registration Fees:

Pre-Registration Fee	$65
On-Site Registration	$80
Schools using the Conference as PIR Days	
5 Teachers	$275
10 Teachers	$500 (Each additional teacher $50)
Guest Banquet Tickets	$15
Guest Luncheon Tickets	$10

Banquet and Luncheons are included with the Registration for those attending the conference

Pre-Registration and Group PIR Day registration must be received by August 30, 1994

Registration Form:

Name _____

Representing _____

Address _____

City _____ State _____ ZIP _____

Phone (work) _____ (home) _____

Are you attending the banquet? _____ Yes ____ No

Do you wish to take a class on the METNET Bulletin Board System? _____ Yes ____ No

Make checks payable to: Montana Telecommunications & Distance Learning Symposium

Purchase Order Number

Purchase Orders must be Signed

Attach a sheet for Group Registration Names and Information

The Colonial Inn has a block of rooms reserved for this conference:
$48 Single Occupancy $52 Double Occupancy
Call (406) 443-2100 for reservations

Mail Registration Forms, Checks and Purchase Orders to:

Cynthia Denton
Montana Telecommunications and Distance Learning Symposium
201 Third Ave. East
Hobson, Montana 59452

THE HISTORY OF INTERNET

by Tim Sweeney, Montana Department of Administration

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In 1983 this demand, combined with the continuing use of the network for purposes unrelated to national defense (including the sharing of science fiction stories), resulted in the establishment of a progeny network, MILNET, a network dedicated to military operational use. ARPANET was thus left to the non-military researchers and scientists. At approximately the same time major advances were occurring in network technologies. As soon as other networks began connecting to ARPANET, the network of networks known as ARPA Internet, later known just as Internet, came into existence.

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